

P. Gombel

CRF Errors Corrected by the STIC Systems Branch

# 22

CRF Processing Date: 3/25/2003

Edited by:

Verified by:

(STIC staff)

Serial Number:

09/627,896B

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically:
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically:
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included:
- ☐ Deleted extra, invalid, headings used by an applicant, specifically:
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as
- ☒ Inserted mandatory headings, specifically: 2207 globally
- ☐ Corrected an obvious error in the response, specifically:
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically:
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected:
- ☐ Other:

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



1600

## RAW SEQUENCE LISTING

DATE: 03/25/2003

PATENT APPLICATION: US/09/627,896B

TIME: 09:56:16

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03252003\I627896B.raw

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3 <110> APPLICANT: CO, MAN SUNG
4   VASQUEZ, MAXIMILIANO
5   CARRENO, BEATRIZ
6   CELNIKER, ABBIE CHERYL
7   COLLINS, MARY
8   GOLDMAN, SAMUEL
9   GRAY, GARY S.
10  KNIGHT, ANDREA
11  O'HARA, DENISE
12  RUP, BONITA
13  VELDMAN, GEERTRUIDA M.
15 <120> TITLE OF INVENTION: HUMANIZED IMMUNOGLOBULIN REACTIVE WITH B7-2 AND METHODS
16   OF TREATMENT THEREWITH
18 <130> FILE REFERENCE: 08702.0081-01000
20 <140> CURRENT APPLICATION NUMBER: 09/627,896B
21 <141> CURRENT FILING DATE: 2000-07-27
23 <160> NUMBER OF SEQ ID NOS: 32
25 <170> SOFTWARE: PatentIn Ver. 2.1
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 405
29 <212> TYPE: DNA
30 <213> ORGANISM: Murine sp.
32 <220> FEATURE:
33 <221> NAME/KEY: CDS
34 <222> LOCATION: (1)..(405)
35 <223> OTHER INFORMATION: Anti-B7-2 heavy chain
37 <400> SEQUENCE: 1
38 atg ggt tgg aac tgt atc atc ttc ttt ctg gtt aca aca gct aca ggt      48
39 Met Gly Trp Asn Cys Ile Ile Phe Phe Leu Val Thr Thr Ala Thr Gly
40 1      5      10      15
42 gtg cac tcc cag gtc cag ctg cag cag tct ggg cct gag ctg gtg agg      96
43 Val His Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Arg
44      20      25      30
47 cct ggg gaa tca gtg aag att tcc tgc aag ggt tcc ggc tac aca ttc      144
48 Pro Gly Glu Ser Val Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe
49      35      40      45
51 act gat tat gct ata cag tgg gtg aag cag agt cat gca aag agt cta      192
52 Thr Asp Tyr Ala Ile Gln Trp Val Lys Gln Ser His Ala Lys Ser Leu
53      50      55      60
55 gag tgg att gga gtt att aat att tac tat gat aat aca aac tac aac      240
56 Glu Trp Ile Gly Val Ile Asn Ile Tyr Tyr Asp Asn Thr Asn Tyr Asn
57 65      70      75      80
59 cag aag ttt aag ggc aag gcc aca atg act gta gac aaa tcc tcc agc      288

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03252003\I627896B.raw

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61          85          90          95
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64 Thr Ala Tyr Met Glu Leu Ala Arg Leu Thr Ser Glu Asp Ser Ala Ile
65          100          105          110
67 tat tac tgt gca aga gcg gcc tgg tat atg gac tac tgg ggt caa gga 384
68 Tyr Tyr Cys Ala Arg Ala Ala Trp Tyr Met Asp Tyr Trp Gly Gln Gly
69          115          120          125
71 acc tca gtc acc gtc tcc tca 405
72 Thr Ser Val Thr Val Ser Ser
73          130          135
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77 <211> LENGTH: 135
78 <212> TYPE: PRT
79 <213> ORGANISM: Murine sp.
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Anti-B7-2 heavy chain
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87 1          5          10          15
89 Val His Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Arg
90          20          25          30
92 Pro Gly Glu Ser Val Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe
93          35          40          45
95 Thr Asp Tyr Ala Ile Gln Trp Val Lys Gln Ser His Ala Lys Ser Leu
96          50          55          60
98 Glu Trp Ile Gly Val Ile Asn Ile Tyr Tyr Asp Asn Thr Asn Tyr Asn
99 65          70          75          80
101 Gln Lys Phe Lys Gly Lys Ala Thr Met Thr Val Asp Lys Ser Ser Ser
102          85          90          95
104 Thr Ala Tyr Met Glu Leu Ala Arg Leu Thr Ser Glu Asp Ser Ala Ile
105          100          105          110
107 Tyr Tyr Cys Ala Arg Ala Ala Trp Tyr Met Asp Tyr Trp Gly Gln Gly
108          115          120          125
110 Thr Ser Val Thr Val Ser Ser
111          130          135
114 <210> SEQ ID NO: 3
115 <211> LENGTH: 396
116 <212> TYPE: DNA
117 <213> ORGANISM: Murine sp.
119 <220> FEATURE:
120 <221> NAME/KEY: CDS
121 <222> LOCATION: (1)..(396)
122 <223> OTHER INFORMATION: Anti-B7-2 light chain
124 <400> SEQUENCE: 3
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126 Met Asp Ser Gln Ala Gln Val Leu Ile Leu Leu Leu Leu Trp Val Ser
127 1          5          10          15
132 ggt acc tgt ggg gac att gtg ctg tca cag tct cca tcc tcc ctg gct 96

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Output Set: N:\CRF4\03252003\I627896B.raw

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133 Gly Thr Cys Gly Asp Ile Val Leu Ser Gln Ser Pro Ser Ser Leu Ala
134          20          25          30
136 gtg tca gca gga gag aag gtc act atg agc tgc aaa tcc agt cag agt 144
137 Val Ser Ala Gly Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser
138          35          40          45
140 ctg ctc aac agt aga acc cga gag aac tac ttg gct tgg tac cag cag 192
141 Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu Ala Trp Tyr Gln Gln
142          50          55          60
144 aaa cca ggg cag tct cct aaa ctg ctg atc tac tgg gca tcc act agg 240
145 Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
146 65          70          75          80
148 gaa tct ggg gtc cct gat cgc ttc aca ggc agt gga tct ggg aca gat 288
149 Glu Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
150          85          90          95
152 ttc act ctc acc atc agc agt gtg cag gct gaa gac ctg gca gtt tat 336
153 Phe Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr
154          100          105          110
156 tac tgc acg caa tct tat aat ctt tac acg ttc gga ggg ggg acc aag 384
157 Tyr Cys Thr Gln Ser Tyr Asn Leu Tyr Thr Phe Gly Gly Gly Thr Lys
158          115          120          125
160 ctg gaa ata aaa 396
161 Leu Glu Ile Lys
162 130
165 <210> SEQ ID NO: 4
166 <211> LENGTH: 132
167 <212> TYPE: PRT
168 <213> ORGANISM: Murine sp.
170 <220> FEATURE:
171 <223> OTHER INFORMATION: Anti-B7-2 light chain
173 <400> SEQUENCE: 4
174 Met Asp Ser Gln Ala Gln Val Leu Ile Leu Leu Leu Leu Trp Val Ser
175 1          5          10          15
177 Gly Thr Cys Gly Asp Ile Val Leu Ser Gln Ser Pro Ser Ser Leu Ala
178          20          25          30
180 Val Ser Ala Gly Glu Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser
181          35          40          45
183 Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu Ala Trp Tyr Gln Gln
184          50          55          60
186 Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
187 65          70          75          80
189 Glu Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
190          85          90          95
192 Phe Thr Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr
193          100          105          110
195 Tyr Cys Thr Gln Ser Tyr Asn Leu Tyr Thr Phe Gly Gly Gly Thr Lys
196          115          120          125
198 Leu Glu Ile Lys
199 130
202 <210> SEQ ID NO: 5

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## RAW SEQUENCE LISTING

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TIME: 09:56:16

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03252003\I627896B.raw

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203 <211> LENGTH: 405
204 <212> TYPE: DNA
205 <213> ORGANISM: Artificial Sequence
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: Humanized
209     murine anti-human B7-2 heavy chain
211 <220> FEATURE:
212 <221> NAME/KEY: CDS
213 <222> LOCATION: (1)..(405)
215 <400> SEQUENCE: 5
218 atg ggt tgg aac tgt atc atc ttc ttt ctg gtt acc aca gct aca ggt    48
219 Met Gly Trp Asn Cys Ile Ile Phe Phe Leu Val Thr Thr Ala Thr Gly
220   1             5             10             15
222 gtg cac tcc cag gtc cag ctg gtg cag tct ggg gct gag gtg aag aag    96
223 Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
224             20             25             30
226 cct ggg agc tca gtg aag gtg tcc tgc aaa gct tcc ggc tac aca ttc    144
227 Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
228             35             40             45
230 act gat tat gct ata cag tgg gtg aga cag gct cct gga cag ggc ctc    192
231 Thr Asp Tyr Ala Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
232   50             55             60
234 gag tgg att gga gtt att aat att tac tat gat aat aca aac tac aac    240
235 Glu Trp Ile Gly Val Ile Asn Ile Tyr Tyr Asp Asn Thr Asn Tyr Asn
236  65             70             75             80
238 cag aag ttt aag ggc aag gcc aca atg act gta gac aag tcg acg agc    288
239 Gln Lys Phe Lys Gly Lys Ala Thr Met Thr Val Asp Lys Ser Thr Ser
240             85             90             95
242 aca gcc tat atg gaa ctt agt tct ttg aga tct gag gat acg gcc gtt    336
243 Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
244             100            105            110
246 tat tac tgt gca aga gcg gcc tgg tat atg gac tac tgg ggt caa ggt    384
247 Tyr Tyr Cys Ala Arg Ala Ala Trp Tyr Met Asp Tyr Trp Gly Gln Gly
248             115            120            125
250 acc ctt gtc acc gtc tcc tca                                405
251 Thr Leu Val Thr Val Ser Ser
252   130            135
255 <210> SEQ ID NO: 6
256 <211> LENGTH: 135
257 <212> TYPE: PRT
258 <213> ORGANISM: Artificial Sequence
260 <220> FEATURE:
261 <223> OTHER INFORMATION: Description of Artificial Sequence: Humanized
262     murine anti-human B7-2 heavy chain
264 <400> SEQUENCE: 6
265 Met Gly Trp Asn Cys Ile Ile Phe Phe Leu Val Thr Thr Ala Thr Gly
266   1             5             10             15
268 Val His Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
269             20             25             30

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03252003\I627896B.raw

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271 Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
272      35      40      45
274 Thr Asp Tyr Ala Ile Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
275      50      55      60
277 Glu Trp Ile Gly Val Ile Asn Ile Tyr Tyr Asp Asn Thr Asn Tyr Asn
278      65      70      75      80
280 Gln Lys Phe Lys Gly Lys Ala Thr Met Thr Val Asp Lys Ser Thr Ser
281      85      90      95
283 Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
284      100      105      110
286 Tyr Tyr Cys Ala Arg Ala Ala Trp Tyr Met Asp Tyr Trp Gly Gln Gly
287      115      120      125
289 Thr Leu Val Thr Val Ser Ser
290      130      135
293 <210> SEQ ID NO: 7
294 <211> LENGTH: 396
295 <212> TYPE: DNA
296 <213> ORGANISM: Artificial Sequence
298 <220> FEATURE:
299 <223> OTHER INFORMATION: Description of Artificial Sequence: Humanized
300     murine anti-human B7-2 light chain
302 <220> FEATURE:
303 <221> NAME/KEY: CDS
304 <222> LOCATION: (1)..(396)
306 <400> SEQUENCE: 7
307 atg gat tca cag gcc cag gtt ctt ata ttg ctg ctg cta tgg gta tct 48
308 Met Asp Ser Gln Ala Gln Val Leu Ile Leu Leu Leu Leu Trp Val Ser
309 1      5      10      15
311 ggc acc tgt ggg gac att gtg ctg aca cag tct cca gat tcc ctg gct 96
312 Gly Thr Cys Gly Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala
313      20      25      30
315 gta agc tta gga gag agg gcc act att agc tgc aaa tcc agt cag agt 144
316 Val Ser Leu Gly Glu Arg Ala Thr Ile Ser Cys Lys Ser Ser Gln Ser
317      35      40      45
319 ctg ctc aac agt aga acc cga gag aac tac ttg gct tgg tac cag cag 192
320 Leu Leu Asn Ser Arg Thr Arg Glu Asn Tyr Leu Ala Trp Tyr Gln Gln
321      50      55      60
323 aaa cca ggg cag cct cct aaa ctg ctg atc tac tgg gca tcc act agg 240
324 Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg
325      65      70      75      80
329 gaa tct ggg gtc cct gat cgc ttc agt ggc agt gga tct ggg aca gat 288
330 Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
331      85      90      95
333 ttc act ctc acc atc agc agt ctg cag gct gaa gac gtg gca gtt tat 336
334 Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr
335      100      105      110
337 tac tgc acg caa tct tat aat ctt tac acg ttc gga cag ggg acc aag 384
338 Tyr Cys Thr Gln Ser Tyr Asn Leu Tyr Thr Phe Gly Gln Gly Thr Lys
339      115      120      125

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/627,896B

DATE: 03/25/2003

TIME: 09:56:17

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\03252003\I627896B.raw

L:883 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 23